

Name: _____

Date: _____

FOIL when $A \neq 1$ solution (version 9)

FOIL the expressions shown below:

1. $(4x + 4)(-5x - 4)$

$$\begin{aligned} & (4)(-5)x^2 + (4)(-4)x + (4)(-5)x + (4)(-4) \\ & (-20)x^2 + (-16)x + (-20)x + (-16) \\ & -20x^2 - 36x - 16 \end{aligned}$$

2. $(4x + 5)(9x + 7)$

$$\begin{aligned} & (4)(9)x^2 + (4)(7)x + (5)(9)x + (5)(7) \\ & (36)x^2 + (28)x + (45)x + (35) \\ & 36x^2 + 73x + 35 \end{aligned}$$

3. $(-7x + 5)(5x + 7)$

$$\begin{aligned} & (-7)(5)x^2 + (-7)(7)x + (5)(5)x + (5)(7) \\ & (-35)x^2 + (-49)x + (25)x + (35) \\ & -35x^2 - 24x + 35 \end{aligned}$$

4. $(-5x - 8)(-4x - 9)$

$$\begin{aligned} & (-5)(-4)x^2 + (-5)(-9)x + (-8)(-4)x + (-8)(-9) \\ & (20)x^2 + (45)x + (32)x + (72) \\ & 20x^2 + 77x + 72 \end{aligned}$$

5. $(-7x - 7)(-4x + 3)$

$$\begin{aligned} & (-7)(-4)x^2 + (-7)(3)x + (-7)(-4)x + (-7)(3) \\ & (28)x^2 + (-21)x + (28)x + (-21) \\ & 28x^2 + 7x - 21 \end{aligned}$$

FOIL the expressions shown below:

6. $(-7x + 4)(4x - 4)$

$$\begin{aligned} &(-7)(4)x^2 + (-7)(-4)x + (4)(4)x + (4)(-4) \\ &(-28)x^2 + (28)x + (16)x + (-16) \\ &-28x^2 + 44x - 16 \end{aligned}$$

7. $(4x - 9)(-7x + 5)$

$$\begin{aligned} &(4)(-7)x^2 + (4)(5)x + (-9)(-7)x + (-9)(5) \\ &(-28)x^2 + (20)x + (63)x + (-45) \\ &-28x^2 + 83x - 45 \end{aligned}$$

8. $(-8x - 2)(6x - 3)$

$$\begin{aligned} &(-8)(6)x^2 + (-8)(-3)x + (-2)(6)x + (-2)(-3) \\ &(-48)x^2 + (24)x + (-12)x + (6) \\ &-48x^2 + 12x + 6 \end{aligned}$$

9. $(3x - 3)(8x + 8)$

$$\begin{aligned} &(3)(8)x^2 + (3)(8)x + (-3)(8)x + (-3)(8) \\ &(24)x^2 + (24)x + (-24)x + (-24) \\ &24x^2 - 24 \end{aligned}$$

10. $(8x + 3)(2x + 9)$

$$\begin{aligned} &(8)(2)x^2 + (8)(9)x + (3)(2)x + (3)(9) \\ &(16)x^2 + (72)x + (6)x + (27) \\ &16x^2 + 78x + 27 \end{aligned}$$